

CLAIM AMENDMENTS

1 - 14. (canceled)

1 15. (new) A pressure-relief valve for an oil-filled
2 transformer or tap changer having a casing, the valve comprising:
3 a flange formed with a throughgoing port;
4 means for securing the flange to the casing;
5 a seal surrounding the port;
6 a spring plate spaced outward from the port;
7 a rigid post secured directly to the spring plate and to
8 the flange and fixing the spring plate relative to the flange;
9 a valve body between the plate and the flange and
10 displaceable between a closed position engaging the seal and
11 closing the port and an open position spaced outward from the port
12 and permitting flow out of the casing through the port;
13 a spring having an outer end bearing against the spring
14 plate and an inner end bearing against the valve body to urge the
15 valve body into the closed position, whereby when pressure in the
16 casing exceeds a predetermined limit the valve body is pushed out
17 and fluid in the casing can pass into the housing and thence out of
18 the housing via the vent opening;
19 a cup-shaped housing engaged over and covering the valve
20 body, spring plate, post, and springs, the housing having an end
21 wall spaced from the flange and a side wall projecting from the end

22 wall toward the casing and forming a rim, the housing being formed
23 with a throughgoing vent opening; and

24 means for removably securing the rim directly to the
25 flange, whereby removal of the housing exposes the spring plate,
26 post, valve body, and springs.

1 16. (new) The pressure-relief valve defined in claim 15
2 wherein the spring plate subdivides an interior of the housing into
3 an inner compartment holding the valve body and springs and into
4 which the port opens and a separate outer compartment between the
5 spring plate and the end wall, the vent opening being formed in the
6 side wall at the inner compartment, whereby the spring plate blocks
7 fluid flow from the inner compartment to the outer compartment.

1 17. (new) The pressure-relief valve defined in claim 16.
2 further comprising:

3 an indicating member fixed on the valve body and
4 projecting through the spring plate into the outer compartment; and

5 a switch in the outer compartment actuatable by the
6 indicating member.

1 18. (new) The pressure-relief valve defined in claim 17
2 wherein the outer compartment is above the inner compartment.

1 19. (new) The pressure-relief valve defined in claim 17,
2 further comprising:

3 a rigid feedthrough plate fixed to the flange and
4 extending to the outer compartment, the housing side wall being
5 fitted around the plate; and

6 a cable extending from the switch inside the outer
7 compartment through the feedthrough plate to outside the
8 compartment.

1 20. (new) The pressure-relief valve defined in claim 19,
2 further comprising

3 screws securing the housing to the feedthrough plate.

1 21. (new) The pressure-relief valve defined in claim 19
2 wherein the vent opening is formed in the housing side wall
3 opposite the feedthrough plate.

1 22. (new) The pressure-relief valve defined in claim 17,
2 further comprising

3 at least one stud on the spring plate, the switch being
4 mounted on the stud.

1 23. (new) The pressure-relief valve defined in claim 17,
2 wherein the indicating member is a pin projecting through the end
3 wall of the housing.

4 24. (new) The pressure-relief valve defined in claim 23
5 wherein the pin has an outer end provided with a mushroom-shaped
6 head.

1 25. (new) The pressure-relief valve defined in claim 15,
2 further comprising

3 at least one pin displaceable transversely of the side
4 wall in the flange between an outer position projecting from the
5 flange through a complementary hole in the housing side wall and an
6 inner position recessed in the flange; and

7 a respective spring braced between the pin and the flange
8 and urging the pin into the outer position.

1 26. (new) The pressure-relief valve defined in claim 25
2 wherein the pin has a rounded end.

1 27. (new) The pressure-relief valve defined in claim 15
2 wherein the flange is formed with a threaded bore having an inner
3 end forming a seat and with a passage extending between the seat
4 and an inner surface of the flange in the port, the valve further
5 comprising

6 a threaded valve member screwed into the threaded bore
7 and being screwable between an inner position engaging the seat and
8 blocking the passage and an outer position disengaged from the seat
9 and unblocking the passage.

10 28. (new) The pressure-relief valve defined in claim 27
11 wherein the threaded valve member has a tip engageable with the
12 seat and a bore having an outer end open outside the valve and an
13 inner end open adjacent the tip, whereby, when the threaded valve
14 member is screwed back off the seat, fluid can flow from the
15 passage into the bore.

1 29. (new) The pressure-relief valve defined in claim 15
2 wherein the vent opening is an array of small-diameter holes.

1 30. (new) The pressure-relief valve defined in claim 15
2 wherein the vent opening is a horizontally extending slot.

1 31. (new) The pressure-relief valve defined in claim 30,
2 further comprising
3 a shield hood above the slot.

1 32. (new) The pressure-relief valve defined in claim 15
2 wherein the seal has a beveled annular seal face engageable with
3 the valve body.

1 33. (new) A pressure-relief valve for an oil-filled
2 transformer or tap changer having a casing, the valve comprising:
3 a flange formed with a throughgoing port;
4 means for securing the flange to the casing;

5 a seal surrounding the port;
6 a spring plate spaced outward from the port and fixed to
7 the flange;
8 a valve body between the plate and the flange and
9 displaceable between a closed position engaging the seal and
10 closing the port and an open position spaced outward from the port
11 and permitting flow out of the casing through the port;
12 a spring having an outer end bearing against the spring
13 plate and an inner end bearing against the valve body to urge the
14 valve body into the closed position, whereby when pressure in the
15 casing exceeds a predetermined limit the valve body is pushed out
16 and fluid in the casing can pass into the housing and thence out of
17 the housing via the vent opening;
18 a cup-shaped housing engaged over and covering the valve
19 body, spring plate, and springs, the housing having an end wall
20 spaced from the flange and a side wall projecting from the end wall
21 toward the casing, formed with a cutout and forming a rim, the
22 housing being formed with a throughgoing vent opening;
23 a feedthrough plate fixed to the flange, fitting in the
24 cutout, and substantially filling the cutout;
25 a feedthrough extending through the feedthrough plate;
26 screws securing the feedthrough plate to the housing; and
27 means for removably securing the rim directly to the
28 flange, whereby removal of the housing exposes the spring plate,
29 valve body, and springs.